

(c) A hazardous substance must be stowed in a hold or barge that is closed or covered and prevents dispersal of the material during transportation.

(d) During cargo transfer operations, a spill or release of a hazardous substance must be minimized to the greatest extent possible. Each release must be reported as required in paragraph (b) of this section.

(e) After a hazardous substance is unloaded, the hold in which it was carried must be cleaned thoroughly. The residue of the substance must be disposed of pursuant to 33 CFR 151.55 through 151.77 and the applicable regulations of 40 CFR subchapter I.

§ 148.275 Iron oxide, spent; iron sponge, spent.

(a) Before spent iron oxide or spent iron sponge is loaded in a closed hold, the shipper must give the master a written certification that the material has been cooled and weathered for at least eight weeks.

(b) Both spent iron oxide and spent iron sponge may be transported on open hold all-steel barges after exposure to air for a period of at least ten days.

§ 148.280 Magnesia, unslaked (lightburned magnesia, calcined magnesite, caustic calcined magnesite).

(a) This part does not apply to the transport of natural magnesite, magnesium carbonate, or magnesia clinkers.

(b) When transported by barge, unslaked magnesia must be carried in an unmanned, all-steel, double-hulled barge equipped with weathertight hatches or covers. The barge may not carry any other cargo while unslaked magnesia is on board.

(c) The shipping paper requirements in § 148.60 of this part and the dangerous cargo manifest requirements in § 148.70 of this part do not apply to unslaked magnesia transported under the requirements of paragraph (b) of this section.

§ 148.285 Metal sulfide concentrates.

(a) When information given by the shipper under § 148.60 of this part indicates that the metal sulfide concentrate may generate toxic or flam-

mable gases, the appropriate gas detection equipment from §§ 148.415 and 148.420 of this part must be on board the vessel.

(b) No cargo hold containing a metal sulfide concentrate may be ventilated.

(c) No person may enter a hold containing a metal sulfide concentrate unless—

(1) The atmosphere in the cargo hold has been tested and contains sufficient oxygen to support life and, where the shipper indicates that toxic gas(es) may be generated, the atmosphere in the cargo hold has been tested for the toxic gas(es) and the concentration of the gas(es) is found to be less than the TLV; or

(2) An emergency situation exists and the person entering the cargo hold is wearing the appropriate self-contained breathing apparatus.

§ 148.290 Peat moss.

(a) Before shipment, peat moss must be stockpiled under cover to allow drainage and reduce its moisture content.

(b) The cargo must be ventilated so that escaping gases cannot reach living quarters on or above deck.

(c) Persons handling or coming into contact with peat moss must wear gloves, a dust mask, and goggles.

§ 148.295 Petroleum coke, calcined or uncalcined, at 55 °C (131 °F) or above.

(a) This part does not apply to shipments of petroleum coke, calcined or uncalcined, on any vessel when the temperature of the material is less than 55 °C (131 °F).

(b) Petroleum coke, calcined or uncalcined, or a mixture of calcined and uncalcined petroleum coke may not be loaded when its temperature exceeds 107 °C (225 °F).

(c) No other hazardous materials may be stowed in any hold adjacent to a hold containing petroleum coke except as provided in paragraph (d) of this section.

(d) Before petroleum coke at 55 °C (131 °F) or above may be loaded into a hold over a tank containing fuel or material having a flashpoint of less than 93 °C (200 °F), a 0.6 to 1.0 meter (2 to 3 foot) layer of the petroleum coke at a

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temperature not greater than 43 °C (110 °F) must first be loaded.

(e) Petroleum coke must be loaded as follows:

(1) For a shipment in a hold over a fuel tank, the loading of a cooler layer of petroleum coke in the hold as required by paragraph (d) of this section must be completed before loading the petroleum coke at 55 °C (131 °F) or above in any hold of the vessel;

(2) Upon completion of the loading described in paragraph (e)(1) of this section, a 0.6 to 1.0 meter (2 to 3 foot) layer of the petroleum coke at 55 °C (131 °F) or above must first be loaded into each hold, including those holds already containing a cooler layer of the petroleum coke; and

(3) Upon completion of the loading described in paragraph (e)(2) of this section, normal loading of the petroleum coke may be completed.

(f) The master of the vessel must warn members of a crew that petroleum coke is hot, and that injury due to burns is possible.

(g) During the voyage, the temperature of the petroleum coke must be monitored often enough to detect spontaneous heating.

§ 148.300 Radioactive materials.

(a) Radioactive materials that may be stowed or transported in bulk are limited to those radioactive materials defined in 49 CFR 173.403 as Low Specific Activity Material, LSA-1, or Surface Contaminated Object, SCO-1.

(b) Skin contact, inhalation or ingestion of dusts generated by Class 7 material listed in Table 148.10 of this part must be minimized.

(c) Each hold used for the transportation of Class 7 material (radioactive) listed in Table 148.10 of this part must be surveyed after the completion of off-loading by a qualified person using appropriate radiation detection instruments. Such holds must not be used for the transportation of any other material until the non-fixed contamination on any surface, when averaged over an area of 300 cm², does not exceed the following levels:

(1) 4.0 Bq/cm² (10⁻⁴ uCi/cm²;) for beta and gamma emitters and low toxicity alpha emitters, natural uranium, natural thorium, uranium-235, uranium-

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238, thorium-232, thorium-228 and thorium-230 when contained in ores or physical or chemical concentrates, and radionuclides with a half-life of less than 10 days; and

(2) 0.4 Bq/cm² (10⁻⁵ uCi/cm²) for all other alpha emitters.

§ 148.310 Seed cake.

(a) This part does not apply to solvent-extracted rape seed meal, pellets, soya bean meal, cotton seed meal, or sunflower seed meal that—

(1) Contains a maximum of 4 percent vegetable oil and a maximum of 15 percent vegetable oil and moisture combined; and

(2) As far as practical, is free from flammable solvent.

(b) This part does not apply to mechanically expelled citrus pulp pellets containing not more than 2.5 percent oil and a maximum of 14 percent oil and moisture combined.

(c) Before loading, the seed cake must be aged per the instructions of the shipper.

(d) Before loading, the shipper must give the master or person in charge of a barge a certificate from a competent testing laboratory stating the oil and moisture content of the seed cake.

(e) The seed cake must be kept as dry as practical at all times.

(f) If the seed cake is solvent-extracted, it must be—

(1) As free as practical from flammable solvent; and

(2) Stowed in a mechanically ventilated hold.

(g) For a voyage with a planned duration greater than 5 days, the vessel must be equipped with facilities for introducing carbon dioxide or another inert gas into the hold.

(h) Temperature readings of the seed cake must be taken at least once in every 24-hour period. If the temperature exceeds 55 °C (131 °F) and continues to increase, ventilation to the cargo hold must be discontinued. If heating continues after ventilation has been discontinued, carbon dioxide or the inert gas required under paragraph (g) of this section must be introduced into the hold. If the seed cake is solvent-extracted, the use of inert gas